



## **An E-Update**

Prepared by Organizational Results  
Missouri Department of Transportation

**April 2006**

Volume 1, Issue 3

### **Missouri Port Study Spotlights Importance of Waterways**

A recently completed research study confirmed Missouri's waterways as a vital link in the state's global economy. The study also looked at maintenance and expansion needs at port authorities on the Missouri and Mississippi rivers. Did you know that one full, standard tow between St. Louis and Kansas City frees up 900 semi trucks to carry other loads? That tow is equal to a convoy of trucks 45 miles long on I-70 that would burn 75,000 more gallons of fuel. The most common need at the port authorities was infrastructure improvements. Department managers are sharing the study results with planners and decision makers across the state. Care to read more? [Breakthrough Bulletin](#) [Port Study Report](#)

### **Bridge Research Project Earns National Recognition**

The American Society of Civil Engineering has chosen MoDOT's collaboration with the University of Missouri-Rolla as a finalist for civil engineering's equivalent of an Oscar, the OPAL award. The bridge rehabilitation in Greene County used fiber-reinforced polymers to reduce the weight of the deck by 80 percent, while making it stronger and more resistance to corrosion and freeze/thaw cycles. The polymer also is easier to fabricate and transport making for faster installations. The cooperative effort also involved Greene County, Great River Engineering, Strongwell Corporation, Hughes Brothers, Inc., and the University of Wisconsin-Madison. The award dinner is scheduled for April 26 in Washington, D.C.

### **Concrete Using High Levels of Slag Shows Promise**

A by-product from blast furnaces may reduce cracking on large concrete pours thanks to a recent research study. While department specifications already allow for low levels of ground granulated blast furnace slag (GGBFS), department engineers wanted to know how higher concentrations might perform. MoDOT teamed with the University of Missouri-Rolla to conduct a field study using the substructure of the Creve Coeur Memorial Bridge in Maryland Heights. The conclusions of a study suggest that 70 percent concentrations of GGBFS can perform quite well under the correct circumstances. Get all the details. [Breakthrough Bulletin](#) [Slag Study Report](#)

### **MoDOT Team Studying Fuel Efficiency**

MoDOT's Smooth Road Initiative is promising taxpayers "progress you can feel." Now OR staff is trying to prove truckers will feel a difference in their gas tanks. Nationally recognized studies have proven smoother roads can boost gas mileage for large trucks by as much as 4.5 percent. A field study of fuel efficiency on a 22-mile section of Interstate 70 will attempt to validate results for Missouri. Specially equipped trucks will drive the section of road before and after improvements. The results of the study should be available by the end of the construction season in November.



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### Seismic Retrofit Workshop Introduces New Damper Design

More than 25 MoDOT engineers from across the state attended the Metallic Dampers Workshop April 4 in Jefferson City. The workshop offered designers an opportunity to learn the latest in seismic retrofitting for bridges. Metallic dampers have proven to be an economical approach to help older bridges be earthquake safe. Shaking to know more? [Breakthrough Bulletin](#) [Metallic Damper Report](#)

### Transit Study Looks at Impact of Reduced Intercity Service

The old joke, you can't get there from here, has become a reality for many potential bus riders in rural Missouri. Over the past few years, a reduction of bus stops between major cities has left some areas of the state with little or no bus service. A recent study completed by the Organizational Results staff has documented the impact of the decline of intercity transit service. The study included a complete inventory of bus facilities along every bus line in the state, as well as surveys of current bus ridership. The attention generated by the study has already resulted in the reestablishment of bus service along Route 13 from Branson to Clinton. Watch our innovations library for the final report next month.

### Second Partnering Session to Focus on Utility Relocation

What do you do when a gas line runs through your highway construction project? A group of utility, contractor and MoDOT experts will search for better, faster and cheaper ways to relocate utilities at the second Partnering for Innovative Efficiencies April 26 in Jefferson City. Breakout groups will brainstorm solutions to several identified problem areas. The day will conclude with the entire group reaching consensus on a list of actionable items. Check out MoDOT's partnering homepage. [Partnering for Innovative Efficiencies](#)

### Check Out Research Materials Online

Thanks to a recent agreement with the Missouri's Secretary of State's office, you can now check out research materials over the internet. The research library, formerly housed at the Central Laboratory, is now contained within the Missouri State Library in Jefferson City. The library contains research documents from a variety of state and federal agencies. You can use the library's online request service to find a specific research report or multiple documents on the same topic. The library will even mail the documents to your office. If you'd like to browse the stacks in person, go to the Secretary of State's Office Building across the street from the old garage. The reference section is on the second floor. However, you'll need a library card to check out materials. Happy reading! [Missouri State Library Card Registration](#)

**See all our reports in the [innovation library](#).**

You can also find them at [www.modot.org/services/rdt/byDate.htm](http://www.modot.org/services/rdt/byDate.htm).